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ABSTRACT

This booklet contains 10 papers addressed to teachers wishing to make the case for service learning through action research on their own service learning programs. "Introduction" (Jay Smink) examines the need for teacher-based action research and evaluation. "Connect Service with Evaluation for Good Learning" (Robert D. Shumer) explains the inherent relationship between service learning and evaluation. "A Model of Action Research for Practitioners" (Irving H. Buchen) details a model for the five stages of action research: topic selection, research design, data collection and analysis, formulation of findings and conclusions, and communication and dissemination of results. The various stages of the action research process are examined in detail in the following papers: "Early Questions to Ask in Planning Action Research" (Yolanda Yugar); "New Paradigms for Evaluating Service-Learning" (L. Richard Bradley); "Innovative Measures for Evaluating Service-Learning" (Carol G. Weatherford); "Data Analysis Is Fun and Easy" (Susan Root); "Writing with the Audience in Mind" (Carl I. Fertman); "Sharing What We Learn" (Carl I. Fertman); "Involving Students in Evaluation" (Robert D. Shumer); and "Make the Case for Service-Learning" (Marty Duckenfield). Contains 16 general service learning resources, 2 related resources, and 10 references. (MN)

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MAKING THE CASE FOR SERVICE-LEARNING

Action Research & Evaluation

Guidebook for Teachers

CE 078 668

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Making the Case for SERVICE-LEARNING Action Research & Evaluation Guidebook for Teachers

Edited by
Jay Smink & Marty Duckenfield

Sponsored by

NATIONAL YOUTH LEADERSHIP COUNCIL

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TABLE OF CONTENTS

FOREWORD

by James C. Kielsmeier

Service-learning, as a teaching and learning methodology, is expanding around the country. The need both to document the impact of service-learning on teaching and learning and identify ways to improve service-learning practice is critical to ensure long-term success. Moreover, as the authors make clear, researchers by themselves cannot begin to ask and answer the many questions that current service-learning practice raises. Teachers are positioned not only to question the methods and results of service-learning, but they also are equipped to help improve practice by beginning to answer their own questions.

In 1995 in Philadelphia, with the support of the Corporation for National Service and the W.K. Kellogg Foundation, the National Youth Leadership Council spearheaded the first annual Service-Learning Research Seminar (preceding the National Service-Learning Conference) to focus attention on the vital role of research in the service-learning field. Participants included researchers and evaluators, service-learning practitioners, school administrators, and policy planners. *The Action Research and Evaluation Guidebook for Teachers* is a compilation of the presentations made at the third annual Service-Learning Research Seminar in Orlando in 1997. This unique guidebook provides service-learning professionals with a useful tool for designing and conducting their own action research. This guidebook is one in a series entitled *Making the Case for Service-Learning,*[1] developed by the National Youth Leadership Council.

The National Youth Leadership Council extends heartfelt thanks to the Corporation for National Service, Learn and Serve America, and the South Carolina Department of Education for their commitment and support of the Service-Learning Research Seminar and the development of this guidebook. Special thanks are due to Irving Buchen, Kathy Gibson Carter, Marty Duckenfield, Jim Ennis, Jay Smink, and Alan Waterman for their hard work and encouragement in the development, production, and dissemination of this guidebook. The National Youth Leadership Council would also like to thank the authors who contributed articles to this guidebook.

[1] *See the list of publications on page 30, under Resource Section.*

WHY EVALUATE?

Perhaps the idea of research and evaluation are concepts you thought you left behind when you entered the classroom. After all, isn't that the role for researchers at universities and think tanks? What does it have to do with you and your role as a classroom teacher? And, as you work to develop a service-learning program, what does research and evaluation have to do with your work to integrate service into your curriculum?

As a part of the education community, you have an extremely important role to play in the advancement of this teaching methodology. Let us look at why this research and evaluation is important, not only to the educational community, but also to you in your role as a service-learning teacher, and why it is important for you to be involved in the process.

7

INTRODUCTION

by Jay Smink

The Action Research and Evaluation Guidebook for Teachers has been prepared to provide teachers with a simple tool—one that can assist them in playing a vital role in the research and evaluation of service-learning that must take place if this teaching method is going to become a part of valid educational reform.

Research and Evaluation Purpose

There are several reasons why research and evaluation are necessary functions in the advancement of service-learning.

1. Documenting results of service-learning programs.

Service-learning is a relatively new teaching strategy in the education community and is even more foreign to the corporate and community leaders that are part of many educational partnerships. Successful stories and statistics illustrating the effectiveness of service-learning as a teaching methodology need to be shared with many different publics in order to gain widespread support.

2. Demonstrating quality service-learning programs.

The education community needs to define and demonstrate quality service-learning programs. Program components that are successful and most effective need to be identified, as do those that are less successful.

3. Ongoing monitoring of service-learning programs.

Another purpose for having sound research and evaluation is to provide an opportunity for the program practitioners to monitor the project. This gives them the feedback they need to make any necessary program modifications. Service-learning programs can make improvements based on these evaluation results.

Evaluation efforts should be a required and integral part of every service-learning program. A well-planned evaluation provides information that will show the impact of a program on the students, teachers, and other participants; what components make a quality program; and whether or not a program is operating as it was designed to operate. With information such as this, service-learning can both improve and grow.

Need for Teacher-Based Action Research and Evaluation

Basic Research

Research about basic learning strategies, longitudinal studies, or administrative studies are a few examples of research and evaluation studies that are typically conducted by college or university researchers. There will always be a need for these more formal and highly structured research and evaluation approaches.

Action Research

The current most critical need in the field of service-learning, however, is to capture the evaluation information available from hundreds of local school and community programs; this is called action research. Teachers engaged in service-learning projects are best positioned to witness the effects of the program on the students and others. It just makes good sense to promote teachers as having the major responsibility for completing action research regarding their own programs. In addition, hiring professional evaluators is generally too costly to be practical.

This guidebook gives classroom teachers an overview of action research and evaluation techniques. It will also help teachers begin to design and conduct quality evaluation programs within the framework of their existing projects and daily teaching assignments.

Role of Classroom Teacher as Evaluator

1. Review Objectives and Collect Data

The classroom teacher acting as an evaluator must not only serve as the coordinator to implement the program; the teacher must also be the professional with the insights to review the program objectives and collect the data to test how well the objectives were met. This is not a difficult task, but it does demand integrity in the handling of data as it is collected, analyzed, and reported.

2. Present Data to Public

The one role that will be the easiest to perform by the teacher-evaluator is the public relations responsibility. Classroom teachers are normally very happy to disseminate the results of the service-learning program to the various publics that need to hear about the student outcomes and other gains from the services provided in the community. Who is in a better position to provide evidence of program effectiveness than the enthusiastic classroom teacher involved in the program? Furthermore, teachers are in the very best situation to talk to other teachers and professionals about their own results and are able to give direct assistance to others wanting to replicate a similar service-learning program.

3. Maintain Objectivity

When a classroom teacher assumes the task of serving as the evaluator, perhaps the most important aspect of that task is to be sure an objective perspective can be maintained. That unbiased perspective begins with the development and implementation of the evaluation design, continues with the collection and analytical procedures to be used, and ends with the style and methods used to report the results. The teacher may need to have assistance to design some of the more technical evaluation designs, but generally those more elaborate designs are not necessary. Teachers should engage students, community partners, and other key players in evaluation design, both for their essential contributions to the process and as a check on the teacher's unrecognized biases. The basic evaluation design and procedures outlined in this guidebook are adequate to demonstrate program impact and share those results with other practitioners.

Classroom Teachers—the Best Evaluators

Classroom teachers coordinating service-learning activities as part of their curriculum are truly in the best position to evaluate their own programs. Based on their program and teaching objectives, they will know what indicators to use to measure and how to collect the most appropriate information. They will be able to analyze the data and see the changes in student behaviors and attitudes. They will be able to witness the community involvement and the trends in student growth and other teacher involvement. And with true personal convictions, classroom teachers can offer the best evaluation results to other practitioners, policy makers, researchers, and community leaders.

We have seen why teachers, with their position at the frontlines, can make such a needed contribution to service-learning research and evaluation. Our next section shows why participation in this component also improves your teaching and the learning that will take place with your students.

CONNECT SERVICE WITH EVALUATION FOR GOOD LEARNING

by Robert D. Shumer

Service-learning and evaluation are joined at the hip. You can't do one without the other. The Alliance for Service-Learning in Educational Reform (ASLER) principles of good practice suggest that all high quality service-learning programs include "formative and summative evaluation." In fact, all good service-learning programs do more—they incorporate evaluative processes throughout the service and learning activities. Evaluation begets learning, and vice versa.

Exemplary service-learning programs include several components that utilize evaluation processes and techniques to measure learning, impact, and program improvement. These require the learner and learning system to determine community needs and to assess community outcomes to monitor the effectiveness of the service itself. With evaluation considered an external phenomenon for conventional learning situations, service-learning makes it integral to the educational methodology, requiring evaluative processes be applied in order to develop the instructional program. Service-learning includes evaluation in the very essence of its being, from the student, to the program, to the community served. In service-learning the student shares control of the evaluation with teachers, community members, and all those affected by the service activities.

Given this connection, there are many reasons to include evaluation in exemplary service-learning, and there are at least eight concerns which drive the evaluation process (Shumer, 1997).

1) Students perform community assessments to determine program emphases.
2) Students evaluate the impact of service activities on the community.
3) Students evaluate their own learning from the service activities.
4) Instructors need to evaluate whether students are learning appropriate information/skills/concepts from the activity.
5) Program managers determine whether the service-learning method is an effective instructional strategy.
6) Community members determine the impact of the service on local improvement.
7) School district and state standards are assessed in terms of student learning.
8) Funders and others who financially support service-learning determine whether or not to continue their support based on established criteria of success.

Besides these evaluation needs, Patton (1990) describes six areas critical to any plan of study. Before creating a design, one should consider the following questions:

1) Who is the information for and who will use the findings?
2) What kinds of information are needed?
3) How is the information to be used? For what purposes is evaluation being done?
4) When is the information needed?
5) What resources are available to conduct the evaluation?
6) Given answers to the preceding questions, what methods are appropriate?

Patton, 1990, p. 12

While these questions help structure designs for program evaluations, they are pertinent for any assessment. Questions, in fact, are the driving force for most evaluations (Shumer & Berkas, 1992). They frame the intent for students, for teachers, and for all participants in the service-learning process.

Melchior and Bailis (1996), two evaluators of national service-learning programs from Brandeis University, recommend some general guidelines for doing evaluation. They suggest there are four critical starting points for teachers who want to evaluate their programs: 1) defining goals, 2) clarifying expectations, 3) looking at information already collected, and 4) documenting what is done. By following these points, teachers are able to connect program purposes with student activities that produce naturally occurring sources of data. Analysis of this data by both students and teachers produces the information needed to demonstrate what students learn and what has been accomplished by the program.

Evaluation is a necessary component of any service-learning activity or program. It does not sit reflectively at the end of the program; it is a daily, weekly, monthly, and yearly process which improves the level of both service and learning. There are many reasons to do evaluation as part of service; the most important is to always determine what needs to be done, what needs to be known and learned to deliver the service, and what impact the service is having on the community, the participants, and the organization. Focusing on these elements assures that there is intentional learning that elevates the service from simple volunteerism to acts of citizenship and education.

FRAMEWORK FOR ACTION RESEARCH

It is always easier to have a step-by-step process. The model for action research found in this section will provide you with the framework you need to construct your research and evaluation plan.

A MODEL OF ACTION RESEARCH FOR PRACTITIONERS

by Irving H. Buchen

Action research grows out of reflection. Students reflect on practice; so do teachers. The difference is that teachers and practitioners are motivated by professional curiosity and improvement. Why did this work? Why did this not work? The rationale for the first question is replication—to make sure it can work again and again, and maybe by knowing more, at a higher level. The second question proceeds obviously out of frustration and sometimes bewilderment. The expectation clearly was that it would be effective, but it wasn't. Why?

In either case, action research is the vehicle for facilitating practitioner development. Action research is thus a discovery process. It is inquiry learning. It is done by teachers, for teachers, and about teachers. It also may supplement or extend your project evaluation. Certainly, a grant provider would be delighted to have you turn in a completed research project as part of your evaluation. Happily, also, the research process is not terribly complicated. Indeed, it is essentially a five-step process.

Action Research Process Model

1) The Research Topic or Subject
2) The Research Design
3) Data Collection and Analysis
4) Findings and Conclusions
5) Communication and Dissemination

Let us walk through and examine each one of these steps separately and in detail.

1) Research Topic or Subject

This initial stage may involve three operational activities: observation, discussion, and formulation. Generally, practitioners do not start off with a research project but with a research question or issue, generated by their own observation of their practice. This worked. This didn't work. Why? Or this was supposed to have this impact or produce these results. But it didn't. Why?

If you are working with other teachers it is a good idea to discuss the issues that your observations have raised. Together, the dialogue can massage and move the issue closer to becoming a research project. That kind of dialogue can also identify some blind spots and variables that you want to take care of or acknowledge at this beginning stage. Finally, what emerges is that last activity, that of formulation. The problem you are investigating and hoping to solve is cast in final research form.

2) Research Design

If the first step was driven by "Why?" this second step is driven by "How?" But the why drives the how. Each research project may have both generic as well as special and even unique ways of being studied.

One of the first things you need to do is find out whether this research topic already has been done. This is accomplished by undertaking a literature review. Assuming you find that no one has done it yet, another value of the literature review of the field is that it will make you aware of research designs or methodologies used by others.

Inevitably, you will need to establish baseline data. Whether you use pre- and post tests or school records, you need some basic and fixed points of comparison and contrast—some established point to measure change in the school and/or community. Such data insures that you are aligning apples and apples. In addition, every research design needs to spell out two factors: first, what outcomes you expect to have; second, what methods you plan to use to measure those outcomes. The methodology provides a natural transition to the next step.

3) Data Collection and Analysis

This is a critical step in the process because the credibility of the conclusions depends on the quality of the data collected. Various techniques can be used to gather data in the school and/or community for both qualitative and quantitative outcomes: logs or diaries, interviews, questionnaires, video or audio tapes, portfolios, case studies, examination of GPA, attendance records, graduation rates, etc.

The analysis must be systematic; for example, you can't change data sets midstream. If you find the statistical analysis formidable, consult with a local college professor of statistics or someone in your administration. This is perhaps the most exciting step because here is where the conclusions begin to emerge.

4) Findings and Conclusions

You have to make sure that there are clear linkages between both the research question posed and the listed outcomes and conclusions you reach. In other words, they all must match. You also should link, if appropriate, your findings to those you found in the literature review. Because the inquiry process often begets other research opportunities, there should be a portion of your findings which spells out implications for further research. Finally, remember that practitioner research is done for the benefit of other practitioners; so take some care that the language in which you express your findings is user-friendly. Also, action research should be followed by action planning—how these results can be used to improve practice.

5) Communication and Dissemination

Research is not a private but a sharing enterprise. The results need to be reported in many different ways. Most immediately, they can be shared locally, in your school, in your district. You can volunteer to offer an in-service workshop. If you have a county or statewide electronic network, the research findings can be conveyed electronically. A particularly effective dissemination outlet is to make a presentation at a conference. Naturally, there is publication in newsletters, magazines, and journals. This is particularly gratifying because in effect you are paying back the help you received from others through the literature search as well as becoming part of the bibliography of your field. Finally, there is the ultimate conversion: introducing your students to and offering them the special opportunity of becoming researchers in a community of inquiry learners.

THE RESEARCH TOPIC OR SUBJECT

The next section and those that follow focus on each stage of the action research framework. Thinking about some basic questions ahead of time is an important first step.

EARLY QUESTIONS TO ASK IN PLANNING ACTION RESEARCH

by Yolanda Yugar

This section poses questions that will help you through the early phases of developing an action research plan. Knowing what you want to study and how you want to proceed is critical. If time is not taken in the beginning to consider these matters, you may run into unexpected obstacles and have to make major changes midstream. For example, you may realize that you have not collected the data you need or have collected much more than you actually require. Even worse, you may find that the key people who make decisions about your program are interested in outcomes other than those issues you chose to study. Considering certain crucial questions before you begin to formulate your plan of action will help you determine the why's, what's, and how's of your research and will save you time-consuming work in the long run.

You want to begin by answering some very basic questions. This is by no means a complete list, but the questions suggested here will help in narrowing your focus so that the process doesn't seem so overwhelming. Each answer may guide you down a different path or lead you to another set of questions. You do not need to be an expert in research to make these types of decisions. The first round of questions is related to deciding upon the research issues you will want to address.

Who are the stakeholders, and more importantly what are they interested in knowing? School boards may want to see an increase in test scores or grades; parents may want to see that their children are excited about school, are having opportunities to explore career options, or are developing civic responsibility; and teachers may be interested in service-learning in relation to special populations—those who are, for example, gifted, at risk, or mentally or physically challenged. Whoever the stakeholders are, knowing what they are interested in will help you focus on what research issues to study.

The kind of outcomes you are looking for will also influence the research issues you will address. Are student GPA's improving? Are absenteeism or discipline referrals down? Are positive changes occurring in the community as a result of student service? Are teachers' attitudes toward teaching improving? Student, community, and teacher outcomes are those most commonly assessed. The type of outcomes identified are often directly related to who the stakeholders are.

How you decide upon the unit of analysis, or in other words, who or what you are evaluating, is also directly related to the type of outcomes, the stakeholders, and the research issues you will ultimately address. Who will be your target population? Will you study individuals (either students, teachers, or community members), the classroom, or the school district? Your unit of analysis will determine the methodology, design, and instrumentation of your research study.

Deciding how you want to present your discoveries before you begin is useful. How do you want to display your findings? Will you include graphs, charts, or figures? For whom are you writing this report? Keeping your audience in mind and knowing how you want your final product to look will also help you select the data you will collect.

Once you have decided upon the research issues you want to address, the next round of questions involves methodology, design, and instrumentation. These questions will help to guide the research process.

1) How will you go about collecting your data, and when will you collect it? In technical terms, what is your methodology?
2) Will your data be primarily quantitative (numbers), or qualitative (attitudes, beliefs, or opinions), or a combination of the two?
3) What instruments, surveys, or questionnaires will you use to collect the data, and where will you get them? Will you use personal observations, small group discussions, or interviews with students, teachers, and community members? Will you use data that has already been collected, such as grades, attendance, or discipline referrals?
4) What type of research design will you use: experimental with a control group; quasi-experimental, with existing classrooms; or case-studies, in-depth looks at a few individuals or classes?

Another suggestion that will help in answering these questions is to find out about existing research in the area you are considering for study. Knowing what has already been accomplished in the area can provide you with a model to follow as you consider your research. There are a number of ways to access existing research; the Internet, the National Service-Learning Clearinghouse, the ERIC Database, and your state's Education Department or Learn and Serve America Coordinator are all places to start. There is no need to reinvent the wheel. Replication is flattering, and similar results will support previous work, while conflicting results chart new territory.

Finally, it is important to note that no matter how simple or complex you decide your study will be—whether it will represent an individual, a classroom, or a state, or will seek to address one research issue or a series of issues—this same process of decision making should be followed.

THE RESEARCH DESIGN

As you begin to look at issues to research and evaluate, perhaps this next section will stretch your thinking. Creative and unique perspectives may provide the field with stronger results.

NEW PARADIGMS FOR EVALUATING SERVICE-LEARNING

by L. Richard Bradley

After years of studying the impact of service-learning programs on elementary and secondary school students, consensus is still lacking about their real benefits. Numerous studies have suggested positive impacts in the areas of behavior (Benson, 1990), prevention of substance abuse and dropout (Duckenfield and Swanson, 1992), gains in personal and social responsibility and improved academic performance (Conrad and Hedin, 1982, 1987, 1989), and increased problem-solving skills (Newmann and Rutter, 1983). However, establishing direct links between service-learning program objectives and program impacts has been difficult for a number of reasons:

1) Ongoing confusion about what service-learning is and is not, resulting in confusion about what researchers should really be studying.
2) Changes researchers would most like to study—changes in student attitudes and behaviors—typically take more than one school year to appear, while most service-learning programs engage students for much shorter periods of time.
3) Over reliance on quantitative methods of data collection and analysis, to the exclusion of other kinds of information that might help document actual program impacts.

This suggests that a more inclusive approach to the assessment of service-learning is needed, one which follows the paradigm of nonlinear science and "listens to and is intimately engaged with the subject matter."

The word *"assessment"* comes from the Latin word, *"assidere,"* meaning *"to sit beside."* What would it look like for researchers "to sit beside, to listen to," the subject matter of service-learning? What are some of the questions this approach to evaluation might prompt them to ask?

More importantly, what additional information about program impacts might be obtained by taking this approach?

For one thing, the new approach would invite researchers to pay closer attention to *environmental factors* surrounding the program, such as

- conditions in the school and among students;
- conditions in the community; and
- teacher's faithfulness to program intent.

For another thing, researchers would also need to recognize that there are really *three* levels of service-learning evaluation, each focusing on different questions and, therefore, providing an interpretation of what happened. To fully understand what happened in a particular program, information from all three levels is needed.

At the most *basic level* are questions related to the kinds of information desired by stakeholders and funders who want to know

- the number and ethnicity of students who participated in service activities,
- the type and number of hours of service they performed, and
- who the primary beneficiaries of the service were.

This information is then used to make decisions about whether to continue funding a given program.

At the *intermediate level* are questions related to deepening understanding of what happened in this program. Here, interest centers on

- how teachers see service-learning methods connecting with what they teach,
- the level of service-learning implementation—that is, the length and duration of student service-learning activities,
- the kinds of reflective activities used and the amount of time spent in reflection,
- the barriers teachers encountered and what they did to compensate,
- the effectiveness of training and preparation, and
- assessing the overall level of support for the program in the school and community.

This information, gathered by means of interviews and surveys, can give teachers and researchers more accurate information about why a particular program did or did not have the expected impact. This can be used to redesign future programs.

At the *deepest level* are questions which focus on the impact the program has on participants and the community served. This involves using more quantitative methods—pre- and postservice assessments, use of comparison groups and archival data—to assess changes in student knowledge, skills, attitudes, and behaviors. Information collected at this level helps answer questions posed by administrators, parents, and teacher colleagues about the worth and value of service-learning programs.

Service-learning is only a small part of what goes on in a typical school. Without carefully designed evaluations, incorporating the appropriate quantitative and qualitative methods, it will probably be viewed by teachers, parents, and administrators as tangential to the school's essential mission. "Listening to the environment" can help practitioners design and implement programs that put service-learning activities at the core of a school's academic mission.

DATA COLLECTION

Service-learning provides a surfeit of riches; experiences galore and achievements in and out of the classroom are only a few of the available options to be examined by the evaluator. This section discusses how to purposefully comb this vast array for the data that will tell us what is really happening.

INNOVATIVE MEASURES FOR EVALUATING SERVICE-LEARNING

by Carol G. Weatherford

Service-learning experiences, projects, and programs have meaning to those who plan and participate in them. In fact, it is the process of "meaning making" that is the power of the service-learning method. To evaluate service-learning in ways that ignore, overlook, or disregard meaning making, the very heart of service-learning, is to commit the same mistake as the new husband who cut the ends of the ham off before cooking it because his father always had cooked it that way, because *his* father always had cooked it that way. The new wife asked, "Why?" They all discovered the reason the grandfather had always cut the ends off the ham before cooking it was to make it fit his pan!

In deciding what data to gather and how to gather it, remember the lesson learned from the ham: Don't cut the ends off the ham before cooking it when you don't need to. In other words, the questions you want to study should determine the kinds of data you need. The pan size from two generations ago should not dictate how you prepare the ham. It is in this sense that this chapter addresses its title, *Innovative Measures for Evaluating Service-Learning*; however, the consistent subtitle is "Telling the Story that Matters."

Mintz and Hesser (1996) have proposed a practice-to-principles-to-practice model for service-learning programs. They have identified five sets of principles, each developed within a specific context of practice, which have guided the practice of service-learning. Based on their own participation in service-learning and learning from dialogue which produced these five sets of principles during the past three decades, Mintz and Hesser identify three meta-principles—

collaboration, reciprocity, and diversity—and suggest they are useful lenses of the service-learning kaleidoscope for assessing the interactions of principles and practice. Adopting their model and its rationale provides guidelines in our search for meaningful data.

Collaboration

If the purpose of collaboration is to create a shared vision and joint strategies, then each partner must be heard, acknowledged, and addressed. Applying the lens of collaboration to the task of data gathering means that all partners (a) have an acknowledged voice in deciding what to collect and how to collect it, (b) assist with collecting data, and (c) learn from the data being studied.

Reciprocity

"Reciprocity suggests that as students learn from teachers, the community, and one another, teachers should also learn from students, the community, and one another, and so on" (Mintz & Hesser, 1996, p. 36). Applying this concept to data gathering, students will be gathering data from teachers, other students, and the community while teachers are gathering data from students, other teachers, and the community and so on.

Diversity

Service-learning involves a wide range of differences including racial, ethnic, gender, socio-economic status, ages, geographic affinities, sexual orientations, and physical and mental abilities. "When service-learning is viewed through the lens of diversity, opportunities... to discover gifts and capacities of all of the partners are increased. Diversity is an asset that brings to the process varied resources, talents, knowledge, and skills." (Mintz & Hesser, 1996, p. 38). This lens is essential to gathering meaningful data that will help tell the stories that matters.

Sample Evaluation Plan

Samples of questions that Mintz and Hesser (1996) have identified for each lens are structured on the chart on the next pages. For each question, suggestions are provided for the type of data that could be gathered to answer the question.

Evaluation Question	Documentation Needed
1) Have people been engaged in responsible and challenging actions for the common goal?	List of initial participants Job descriptions, list of volunteers, and assignments
2) Are teachers, community members, and students involved in the critical reflections?	Examples of reflections by teachers, community members, and students Analysis of reflection according to identified themes of interest
3) Are there opportunities for shared reflection among partners?	List of dates and descriptions of opportunities for shared reflection List of new understandings gained or outcomes of shared reflections
4) Are there clear service and learning goals for everyone involved?	List of service and learning goals
5) Do the learning and service goals encourage the enhancement of the capacities of all involved?	Analysis or written rationale of how the learning and service goals encourage the enhancement of the capacities of all involved Examples of increased capacities from each group of partners
6) Do all partners have the opportunity to define their needs?	Copies of documents that summarize the needs identified by each group of partners
7) How does attention to reciprocity shift the focus from needs and deficiencies to needs and capacities?	Copies of asset mapping outcomes

EVALUATION MATRIX

Evaluation Question	Documentation Needed
8) Does the program clarify the responsibilities of each person and organization involved?	Job descriptions, list of volunteers and assignments, copies of agreements
9) Are changing circumstances of service providers and service needs recognized?	Description of the system of checks & balances that is in place Examples of how the system has worked for every partner group
10) Are the partners giving each other access to appropriate resources that augment their capacities to learn and serve one another well into the future?	List of resources that have been shared
11) Are training, supervision, monitoring, support, recognition, and evaluation designed to accommodate diverse backgrounds, orientations, and styles?	Copies of training materials
12) Does the program encourage participation in events for individuals with a variety of schedules?	Log of dates and times of scheduled events
13) Does the program extend to persons of various ages, socioeconomic levels, sexual orientation, physical and mental abilities, as well as race and gender?	Description of strategies implemented to extend the program to persons of each identified characteristic
14) Is participants' involvement in various components of the program limited by which domain they represent or by the viewpoints they express?	Survey results of participant perception regarding limitations to full participation

Reflection Framework

Collecting the information that truly delivers the meaning of service-learning to the participants can be gathered through reflection activities with all participants in the service-learning experience. The National Youth Leadership Council has developed a very useful framework for reflection. Responding to the questions *What?*, *So What?*, and *Now What?* provides students with a rather simple way to structure their reflective thinking. Written reflections provide an especially rich source of data for understanding meaning. Reflection products can be analyzed using a variety of categories. For example, if interested in the impact that participation in service-learning has on the development of complex thinking skills, one might collect written student reflections and apply the structure of analysis based on Bloom's Taxonomy illustrated below.

Question	Process	Outcome
What?	Recall Basic Description	Learning: Knowledge (Recall) Experience: Preparation, Feelings
So What?	Analysis & Synthesis	New Understandings Generalizations Eliminating Stereotypes Meaning New Meaning Self Understanding (Why you feel the way you do)
Now What?	Evaluation/Judgment Change	New Practices New Attitudes, Beliefs, Values Improved Practice Renewed, Deepened or New Commitment Creative Problem Solving

These are examples of some of the many tools you can use to evaluate service-learning. As you collect your data, be sure the "meaning making" has a chance to come through.

DATA ANALYSIS

Here's where the fun really begins! The results start to emerge and become clear. If there is an impact, the data analysis stage is where it will be revealed.

DATA ANALYSIS IS FUN AND EASY

by Susan Root

Various tools for data analysis are available to action researchers. Data analysis is a key step in action research, because the results of analysis form the basis for teachers' conclusions about their classrooms and their decisions about new teaching techniques.

When most teachers think of data analysis, they envision the quantitative (statistical) techniques used in formal educational studies. In formal research, the goal is to generalize from a sample to a larger population. The goal of action research, however, is to gain an in-depth understanding of a single situation. The teacher wants to know, for example, "How did mentoring affect my students' academic performance?" or "Will initiating a recycling program enhance our students' understanding of environmental concepts?" In this type of analysis, qualitative tools predominate.

The first step in qualitative data analysis is data reduction. Action research projects typically generate a wealth of data, e.g., logs, interview transcripts, and student journals. Data reduction is the process of simplifying and assigning interpretive labels to this data. Although a variety of methods exist, two of the most widely used data reduction techniques are coding and thematic analysis. Coding is the process of assigning category labels to small units of data, such as phrases or paragraphs. The goal of coding is to allow the teacher to later pull out all examples from the data which pertain to a particular issue. For example, a teacher may wish to examine the impact of an intergenerational writing project on students' attitudes toward senior citizens. He might assign the label SEN to each sentence in which students express feelings about the elderly. The teacher might refine this coding scheme further to record whether the feelings expressed are positive (SEN-POS), negative (SEN-NEG), or neutral (SEN-NEU).

Thematic analysis, like coding, involves categorizing raw data. However, in thematic analysis, the researcher searches for patterns or themes in large amounts of data. For example, a teacher whose class is investigating a recent chemical spill may discover that, in their journals, students increasingly write about contacting elected officials or circulating petitions about the problem. Thus, the teacher may conclude that a major theme in the data is increased knowledge of the political process.

Once researchers have simplified the data by assigning codes and themes, the next step is to organize the results by summarizing the data in order to draw conclusions. To organize the results, the researcher identifies higher order relationships such as frequencies of occurrence or possible cause and effect connections among events. One way to organize results is to use a data display, such as a table or figure. For example, imagine a teacher who is interested in the effects of a service-learning project on the participation of high-, average-, and low-achieving students in her class. After coding indicators of participation in her field notes, such as asking questions, the teacher might create a table with participation on the vertical axis and each of the three groups listed along the horizontal axis, making a graphic comparison of participation levels in the project.

A second type of data display is a correlative network. A correlative network is a graphic representation of the independent and dependent variables in a study and the possible cause-effect relations among them. For example, a teacher might be interested in the effects of three instructional techniques: a video, a cooperative learning task, and a clean-up project on students' understanding of the problem of waste. The teacher might code students' journals after each experience for concepts about waste and then create a correlative network representing the links between type of learning experience and type and number of concepts recorded by students.

After teachers have organized the results of their research, the final step in data analysis is drawing and validating conclusions. Drawing conclusions is the process of creating an overarching construct which integrates the data from a project. For example, a teacher who studied the effects of a project in which students helped senior citizens write poetry might have uncovered a key finding: that the seniors were more interested in being able to recount their experiences than in learning the conventions of poetry.

Because action researchers typically work alone as participants in the setting under study, their conclusions can be influenced by several types of errors. For example, a teacher may selectively attend only to evidence which confirms her hypotheses or may overemphasize the importance of a single event that occurred during the study. If they are to insure that conclusions are valid, action researchers must employ safeguards for reducing potential sources of error. The most widely used method for checking the validity of one's conclusions is triangulation. In triangulation, the researcher obtains evidence pertaining to a question from several sources. For example, a teacher may believe that the class mentoring program has positively affected student self-esteem. In order to confirm this finding, the teacher should seek evidence of increased self-esteem not only in students' journals, for example, but in interviews and in surveys of students' parents.

FINDINGS AND FINAL REPORTS

As you collect your findings, remember that although formal reports, necessary for funders, may tell the whole story, many of the audiences you are trying to reach probably will not take the time to read lengthy documents. There are more appropriate ways to present your research and evaluation data.

WRITING WITH THE AUDIENCE IN MIND

by Carl I. Fertman

This section discusses how to report what we learn from an evaluation. It is important to focus on the way in which evaluation findings are presented. The packaging and timing of the reports are critical in increasing the impact of the evaluation. Those targeted by the evaluation—the teachers, principals, students, parents, funders, service recipients, and community members—are constantly receiving written information, and competition for their time and energy is keen. Reports must be presented in a way that will hold their attention long enough for the information to be conveyed.

Writing With a Specific Audience in Mind

Begin by identifying the people to whom you want to report the results of your evaluation. There are two groups to consider: those who would most benefit from the evaluation information, and those whose support is most needed. With an audience identified, the report should focus on information that will be of greatest interest to that audience.

Principals, community leaders, advisory board members, and teachers (those already involved) need information on how service-learning is functioning. They can use that information to determine ways in which to strengthen the school's service-culture and commitment to service-learning. Colleagues and community supporters, on the other hand, will use the information to decide whether or not to become involved. With this audience, the goal is to answer questions and concerns so that they feel comfortable entering collaborations and offering resources. In this case, the information should be non-threatening, to overcome the anxieties and fears of the audience.

Resource brokers and opinion shapers (e.g., school board members, elected governmental officials, and community leaders) need information that will persuade them to consider changes in policy, resource allocation, and program activity. Community members in general are looking for information on what has already been accomplished. They want to hear about tangible outcomes, particularly those that show the impact of service-learning on the community. Community-based organizations that have already established service-learning collaborations will want to know about participant outcomes, staff effectiveness, and potential obstacles to implementation. Think about the members of your audience and the information that will be of greatest interest to them, and then tailor your report to their needs.

General Recommendations

These are a few points to keep in mind when you begin to write your evaluation report.

Start with a plan.

Think about the information above, and decide which audience and format are most appropriate for your evaluation. You may also want to tailor your presentation to a specific group or individual. Remember to plan ahead; don't wait until you have your results to think about how you will share them.

Keep it simple.

Evaluation reports do not need to be elaborate. It is most important that the information shared is clear, simple, and timely. Use brief sections and subsections, and make titles clear and informative. Whenever possible depict findings pictorially, in charts, graphs or figures, and combine these with explanations in the text. Mix didactic and data-rich information with supporting evidence and anecdotal descriptions in the evaluation. This will make the report more interesting and readable and the findings more believable.

Respect adult learning styles.

There are three principles of adult learning to keep in mind when communicating evaluation findings. First, adults are most interested in information that is directly relevant to the projects and problems they are dealing with in their own lives. Second, they are most likely to use information that relates to their own personal experience. Third, different people learn in different ways—some are visually-oriented, others prefer narrative text, and some learn best when they hear something instead of reading it. Thus, it may be most beneficial to combine a few different methods of information dissemination.

COMMUNICATION AND DISSEMINATION

Dissemination of your results is the final stage of the research and evaluation process. Without this step, all your hard work will be for naught. This is the time to utilize your creativity as you strive to reach your different audiences.

SHARING WHAT WE LEARN

by Carl I. Fertman

Sharing evaluation results is critical; if an evaluation's findings are not distributed, then the purpose of conducting that evaluation is nullified. Evaluations are meant to provide information that will result in wider recognition and positive change. Without the report itself, evaluation information goes no further than the evaluators. It is our responsibility to let others know what we have learned.

Packaging Reports to Compete for Attention

In this information-rich society, there is much competition for your audience's attention. Keep in mind that there are a number of ways to disseminate evaluation information. Too many evaluators think that the only option is to write a technical evaluation report. While this may be appropriate in many situations, there are other alternatives, some of which may be more desirable depending on the audience and circumstances in question.

Technical Report—This complete report of the evaluation includes background, methods, results, findings, and recommendations. It is a good choice to present to funders.

Executive Summary—This report highlights evaluation results. It is appropriate for an audience of principals and administrators.

Highlight or Brief Paper—An overview of the evaluation that emphasizes recommendations and implications, providing a quick snapshot of evaluation results.

Popular Article—This report will discuss the results and implications for a specific target group of teachers, parents, or principals. An article may be especially useful in reaching local and state teachers' and principals' associations.

News Release or Press Conference—These communication methods will use the media for general distribution of information to the community via radio, television, and newspaper.

Public Meeting—An information session designed to reach the public. It is good for communicating with parents, and can be presented as part of parents' night.

Media Appearance—This communication method presents evaluation information as part of a television or radio program, often on a public access channel through a local cable company. Media coverage conveys a sense of importance about a program, increasing the possibility that evaluation results will be heard and taken seriously.

Include Your Students and Community Partners—Get these folks involved in the dissemination process. They, too, can and should be involved in getting the word out to the public.

Staff Workshop—This method will use evaluation information as part of an in-service training for teachers and agency staff.

Clearinghouse Submissions—The National Service-Learning and ERIC Clearinghouses have interest in teacher evaluations and service-learning. Submit copies of technical reports or highlight papers to these clearinghouses.

Brochure, Poster, or Flyer—These communication methods will present findings in a concise and attractive manner. It is good for distributing information at conferences or through the mail.

School Web Page—A homepage on the Internet can include general information about the school as well as specific service-learning evaluation information. A Web page has the advantage that it can be updated as often as desired. It can be combined with other methods listed here (newsletter, brochure, memo, etc.) to let your audience know that the homepage exists.

Memo—A brief memo concerning the evaluation can be sent to select individuals and stakeholders.

Personal Discussion—This communication method includes an individual or small group meeting to discuss the results and implications of the evaluation.

Newsletter—Many schools already print newsletters. These often include such items as current service activities, recent accomplishments, kudos, personal stories, details of upcoming events of interest, and future directions for programs. Evaluation results can also be posted in a school's newsletter.

A Final Word

Once you have some data that show the value of your service-learning program, let your dissemination of these findings be a continuous part of your role as a service-learning teacher.

A FURTHER SUGGESTION

Involving students is not innovative in service-learning; it is, however, an innovative and effective approach for research and evaluation. This section makes the case for student involvement in the process.

INVOLVING STUDENTS IN EVALUATION

by Robert D. Shumer

Service-learning requires students to engage in meaningful service. Embedded in this process is a need to determine what service should be provided, what learning is needed, and what effect the whole process has on students, communities, and school organizations. Yet most of these issues cannot be addressed unless students, themselves, engage in collecting data and information as a normal part of their service-learning activities.

Students have several opportunities to engage in evaluation while they perform work in high quality service-learning programs. First, they can help determine actual community needs and assets. Surveying and interviewing community members and evaluating the data collected can set the agenda for the service activities. Second, students can evaluate the implementation plan and activity effect by maintaining journals, oral records, and documents which describe the impact of the service on the recipients and the students. If, for example, students are engaged in cross-aged tutoring, records can be kept of the tutees' progress in terms of number of books read, improvement in vocabulary, and even pre- and post-reading grade level tests. All this data can be used by students to assess the effectiveness of their service. The students can also maintain a written record of their own progress, describing what is learned about younger children, the reading process, and their own language arts skills.

In another approach, students can actually participate as evaluators. As described by Campbell, Edgar, and Halsted (1994), students can do evaluations as their service activity. They can interview and observe recipients of service and describe the effect from the perspective of an "outside" person. By engaging in external evaluation processes, students can enhance their oral communication skills, as well as their analytical and critical thinking. The information they provide back to organizations or programs is a great form of service!

SUMMARY

MAKE THE CASE FOR SERVICE-LEARNING

by Marty Duckenfield

The group of authors in this guidebook originally shared their expertise with teachers just like you at the 1997 National Service-Learning Conference in Orlando, Florida. In that full-day workshop, teachers had the opportunity to design a research and evaluation plan for their service-learning programs. Now you have the opportunity to do the same!

As a new researcher in the field of service-learning, you have an exciting opportunity to advance the field. You can be a part of a vital and necessary effort to provide a wide variety of indicators that can show how service-learning is meeting the educational needs of all our students.

The collective evaluation of teachers and their students from all across the country can expand the knowledge and understanding of this promising teaching method. By providing data acquired from the frontlines—looking at issues that reflect academic outcomes, citizenship, social and personal growth, workplace skills, teacher re-engagement, as well as community development—you can provide some real information that can guide the careful growth of this movement.

The opportunity to be involved in the research and evaluation process will not only provide the service-learning field with the answers to so many questions; it will also provide you with a better service-learning program. As you enhance your skills as an evaluator, and if you involve your students as well, you will have a wealth of information to reflect on as you improve your own practice of service-learning.

Come join us; make the case for service-learning so service-learning can continue to thrive.

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MAKING THE CASE FOR

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LEARNING

Guidebook for Teachers

ABOUT NYLC...

Founded in 1983, National Youth Leadership Council's mission is to engage young people in communities and schools through innovation in learning, service, leadership and public policy. NYLC has been a pioneer in the field of service-learning—a method of teaching that enriches learning by engaging students in meaningful service to their schools and their communities. Through careful integration with established curricula, lessons gained from hands-on service heighten interest and enhance academic achievement. Service-learning is a proven key to educational reform that also makes significant contributions to community development.

For membership, publications or program information, contact:

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